

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously presented) A computer-implemented method for correcting an XML electronic document, comprising:
 - identifying a validation error in the XML electronic document, the validation error being a structural aspect of the XML electronic document that fails to conform to rules of an XML document type definition or an XML schema, the rules being associated with the XML electronic document, the validation error being of a particular kind;
 - selecting a suggestion template from among multiple suggestion templates according to the particular kind of the validation error, and using the selected suggestion template to suggest to a user suggested corrections that are predefined in the template for the particular kind of validation error, the selected suggestion template including logic necessary to implement the suggested corrections to the document to correct the identified non-conforming structural aspect;
 - receiving an input selecting one of the suggested corrections; and
 - using the logic in the selected suggestion template to apply the correction selected by the input to the XML electronic document.
2. (Previously presented) The method of claim 1, wherein:
 - identifying a structural aspect of the XML electronic document includes identifying a missing, extraneous, misplaced, or mismatched structural aspect of the XML electronic document.
3. (Previously presented) The method of claim 1, wherein:
 - the rules include one or more rules stored separately from and referred to in the XML electronic document.

4. (Previously presented) The method of claim 1, wherein:
the rules include one or more rules stored in the XML electronic document.
- 5-7. (Cancelled)
8. (Previously presented) The method of claim 1, wherein:
the rules include one or more rules defined in an XML DTD.
9. (Previously Presented) The method of claim 1, wherein:
suggesting changes to the user includes suggesting a plurality of changes to the user in an order determined by predefined user preferences, the predefined user preferences including ranking particular changes higher than other changes.
10. (Cancelled)
11. (Original) The method of claim 1, wherein suggesting one or more changes to a user comprises:
requesting information from a user about the identified structural aspect; and
based on input received in response to the request, suggesting to the user one or more changes that would correct the identified structural aspect.
12. (Previously presented) The method of claim 1, wherein:
identifying a structural aspect of the XML electronic document that fails to conform to rules associated with the XML electronic document includes identifying one or more structural aspects of the XML electronic document that fail to conform to rules associated with the document;
and
applying the correction selected by the input includes applying the correction selected by the input to the XML electronic document, thereby bringing the entire XML electronic document into conformance with the rules.

13. (Previously presented) A computer-implemented method for validating and correcting an XML electronic document, comprising:

recursively validating a parent element of the markup language document by:

validating attributes of the parent element,

validating a content model of the parent element, and

recursively validating one or more children of the parent element;

identifying a validation error in the XML electronic document, the validation error being a structural aspect of the XML electronic document that fails to conform to one or more rules of an XML document type definition or an XML schema, the rules being associated with the XML electronic document, the validation error being of a particular kind;

selecting a suggestion template from among multiple suggestion templates according to the particular kind of the validation error, and using the selected suggestion template to suggest to a user suggested corrections that are predefined in the template for the particular kind of validation error, the selected suggestion template including logic necessary to implement the suggested corrections to the document to correct the identified non-conforming structural aspect;

receiving an input selecting one of the suggested corrections; and

using the logic in the selected suggestion template to apply the correction selected by the input to the XML electronic document.

14. (Cancelled)

15. (Previously presented) The method of claim 13, further comprising:

checking a root element against a DOCTYPE root tag specified in the rules associated with the XML document; and

allowing a user to retag the root element using the DOCTYPE root tag.

16. (Previously presented) A computer program product tangibly embodied in a machine-readable medium for correcting an XML electronic document, the product comprising instructions operable to cause one or more data processing apparatus to perform operations comprising:

identifying a validation error in the XML electronic document, the validation error being a structural aspect of the XML electronic document that fails to conform to rules of an XML document type definition or an XML schema, the rules being associated with the XML electronic document, the validation error being of a particular kind;

selecting a suggestion template from among multiple suggestion templates according to the particular kind of the validation error, and using the selected suggestion template to suggest to a user suggested corrections that are predefined in the template for the particular kind of validation error, the selected suggestion template including logic necessary to implement the suggested corrections to the document to correct the identified non-conforming structural aspect;

receiving an input selecting one of the suggested corrections; and

using the logic in the selected suggestion template to apply the correction selected by the input to the XML electronic document.

17. (Previously presented) The computer program product of claim 16, wherein:

identifying a structural aspect of the XML electronic document includes identifying a missing, extraneous, misplaced, or mismatched structural aspect of the XML electronic document.

18. (Previously presented) The computer program product of claim 16, wherein:

the rules include one or more rules stored separately from and referred to in the XML electronic document.

19. (Previously presented) The computer program product of claim 16, wherein:

the rules include one or more rules stored in the XML electronic document.

20-22. (Cancelled)

23. (Previously presented) The computer program product of claim 16, wherein:

the rules include one or more rules defined in an XML DTD.

24. (Previously Presented) The computer program product of claim 16, wherein:
suggesting changes to the user includes suggesting a plurality of changes to the user in an order determined by predefined user preferences, the predefined user preferences including ranking particular changes higher than other changes.
25. (Cancelled)
26. (Original) The computer program product of claim 16, wherein suggesting one or more changes to a user comprises:
requesting information from a user about the identified structural aspect; and
based on input received in response to the request, suggesting to the user one or more changes that would correct the identified structural aspect.
27. (Previously presented) The computer program product of claim 16, wherein:
identifying a structural aspect of the XML electronic document that fails to conform to rules associated with the XML electronic document includes identifying one or more structural aspects of the XML electronic document that fail to conform to rules associated with the document;
and
applying the correction selected by the input includes applying the correction selected by the input to the XML electronic document, thereby bringing the entire XML electronic document into conformance with the rules.
28. (Previously presented) A computer program product tangibly embodied in a machine-readable medium for validating and correcting an XML electronic document, the product comprising instructions operable to cause one or more data processing apparatus to perform operations comprising:
recursively validating a parent element of the markup language document by:
validating attributes of the parent element,
validating a content model of the parent element, and

recursively validating one or more children of the parent element;

identifying a validation error in the XML electronic document, the validation error being a structural aspect of the XML electronic document that fails to conform to one or more rules of an XML document type definition or an XML schema, the rules being associated with the XML electronic document, the validation error being of a particular kind;

selecting a suggestion template from among multiple suggestion templates according to the particular kind of the validation error, and using the selected suggestion template to suggest to a user suggested corrections that are predefined in the template for the particular kind of validation error, the selected suggestion template including logic necessary to implement the suggested corrections to the document to correct the identified non-conforming structural aspect;

receiving input selecting one of the suggested corrections ; and

using the logic in the selected suggestion template to apply the correction selected by the input to the XML electronic document.

29. (Cancelled)

30. (Previously presented) The computer program product of claim 28, further comprising instructions operable to cause one or more data processing apparatus to perform operations comprising:

checking a root element against a DOCTYPE root tag specified in the rules associated with the XML document; and

allowing a user to retag the root element using the DOCTYPE root tag.

31-32. (Cancelled)

33. (Previously presented) A system, comprising:

a device hosting an electronic document application; and

a processor configured to perform operations comprising:

identifying a validation error in the XML electronic document, the validation error being a structural aspect of the XML electronic document that fails to conform to rules of an XML

document type definition or an XML schema, the being associated with the XML electronic document, the validation error being of a particular kind;

selecting a suggestion template from among multiple suggestion templates according to the particular kind of the validation error, and using the selected suggestion template to suggest to a user suggested corrections that are predefined in the template for the particular kind of validation error, the selected suggestion template including logic necessary to implement the suggested corrections to the document to correct the identified non-conforming structural aspect;

receiving an input selecting one of the suggested corrections; and

using the logic in the selected suggestion template to apply the correction selected by the input to the XML electronic document.

34. (Previously presented) The system of claim 33, wherein:

identifying a structural aspect of the XML electronic document includes identifying a missing, extraneous, misplaced, or mismatched structural aspect of the XML electronic document.

35. (Previously presented) The system of claim 33, wherein:

the rules include one or more rules stored separately from and referred to in the XML electronic document.

36. (Previously presented) The system of claim 33, wherein:

the rules include one or more rules stored in the XML electronic document.

37. (Previously Presented) The system of claim 33, wherein:

suggesting changes to the user includes suggesting a plurality of changes to the user in an order determined by predefined user preferences, the predefined user preferences including ranking particular changes higher than other changes.

38. (Previously Presented) The method of claim 1, wherein:

the template is implemented as a list of commands.

- 39. (Cancelled)
- 40. (Previously Presented) The method of claim 13, wherein:
the template is implemented as a list of commands.
- 41. (Previously Presented) The computer program product of claim 16, wherein:
the template is implemented as a list of commands.
- 42. (Cancelled)
- 43. (Previously Presented) The computer program product of claim 28, wherein:
the template is implemented as a list of commands.
- 44. (Previously Presented) The system of claim 33, wherein:
the template is implemented as a list of commands.